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EXAMINER	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/539,459
Filing Date: March 30, 2000
Appellant(s): KING, ALLEN

Arthur J. Samodovitz
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 15, 2004.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 54, 56-62, and 64-69 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

5,337,413	Lui et al.	8-1994
6,311,274	Day	10-2001
6,470,385	Nakashima et al.	10-2002

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. Claim54, 56-62, and 64-69 rejected under 35 U.S.C. § 103 (a) as being unpatentable over US Patent No. 5,337,413 to Lui et al. in view of Day and further in view of Nakashima et al. This rejection is set forth in a prior Office Action, mailed on January 22, 2004.

Regarding claim 54, Lui et al. teaches a method for communicating to a host system a numerically variable characteristic of a subsystem (column 1, lines 9-11), said method comprising the steps of: said subsystem receiving a request from said host system to monitor said numerically variable characteristic of said subsystem (column 1, lines 30-35) and report to said host system a value of said characteristic or an amount of change of said characteristic (column 1, lines 53-57 and column 4, lines 23-26); and in response to the receiving step, said subsystem monitoring said characteristic, and said subsystem reporting a value of said characteristic or an amount of change of said characteristic to said host system (column 5, lines 27-41).

Lui et al. does not teach report to said host system when a minimum numerical amount of said change occurs. Day teaches report a value of said characteristic or an amount of change of said characteristic when a minimum numerical amount of said change occurs, said request

specifying said minimum numerical amount of said change (column 3, lines 17-20 and 29-32); and in response to the receiving step, monitoring said characteristic, and if and approximately when said minimum numerical amount of said change subsequently occurs in said characteristic, reporting a value of said characteristic or an amount of change of said characteristic (column 2, lines 34-37 and column 4, lines 53-55). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the environment monitoring system of Lui et al. by reporting to said host system when a minimum numerical amount of said change occurs because this prevents a multitude of status reports with little to no change in status thus decreasing network traffic and redundant status reports.

Lui et al. in view of Day does not teach if no change occurs or less than said minimum numerical amount of change occurs before a predetermined time-out, reporting a value of said characteristic or an amount of change of said characteristic upon said predetermined time-out. Nakashima et al. teaches if no change occurs or less than said minimum numerical amount of change occurs before a predetermined time-out, reporting a value of said characteristic or an amount of change of said characteristic upon said predetermined time-out (column 1, lines 42-47 and 51-54). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the environment monitoring system of Lui et al. in view of Day by reporting a value of said characteristic or an amount of change of said characteristic upon said predetermined time-out if no change occurs or less than said minimum numerical amount of change because this prevents long periods of time from elapsing without any type of status report being sent even is the system is running at normal condition.

Regarding claim 62, Lui et al. teaches a computer system comprising a host system and a subsystem coupled to said host system (column 1, lines 9-20), said computer system comprising: first programming in said host system to generate and send a request to said subsystem to monitor a numerically variable characteristic of said subsystem (column 1, lines 30-35) and report to said host system a value of said characteristic or an amount of change of said characteristic (column 1, lines 53-57 and column 4, lines 23-26); second programming in said subsystem to respond to said request by monitoring said characteristic of said subsystem, reporting to said host system a value of said characteristic or an amount of change of said characteristic (column 5, lines 27-41).

Lui et al. does not teach report to said host system when a minimum numerical amount of said change occurs. Day teaches monitor a numerically variable characteristic of said subsystem and report a value of said characteristic or an amount of change of said characteristic when a minimum numerical amount of said change in said characteristic occurs, said request specifying said numerical minimum amount of said change (column 3, lines 17-20 and 29-32); second programming in said subsystem to respond to said request by monitoring said characteristic of said subsystem, and if and approximately when said minimum numerical amount of said change subsequently occurs, reporting a value of said characteristic or an amount of change of said characteristic (column 2, lines 34-37 and column 4, lines 53-55).Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the environment monitoring system of Lui et al. by reporting to said host system when a minimum numerical amount of said change occurs because this prevents a multitude of status

reports with little to no change in status thus decreasing network traffic and redundant status reports.

Lui et al. in view of Day does not teach if no change occurs or less than said minimum numerical amount of change occurs before a predetermined time-out, reporting a value of said characteristic or an amount of change of said characteristic upon said predetermined time-out. Nakashima et al. teaches if no change occurs or less than said minimum numerical amount of change occurs before a predetermined time-out, reporting a value of said characteristic or an amount of change of said characteristic upon said predetermined time-out (column 1, lines 42-47 and 51-54). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the environment monitoring system of Lui et al. in view of Day by reporting a value of said characteristic or an amount of change of said characteristic upon said predetermined time-out if no change occurs or less than said minimum numerical amount of change because this prevents long periods of time from elapsing without any type of status report being sent even is the system is running at normal condition.

Regarding claims 56 and 64, Lui et al. teaches a method as set forth in claim 54 and 62 wherein said characteristic of said subsystem is a characteristic of a component coupled to said subsystem (column 1, lines 8-20, 30-35, and 53-57).

Referring to claims 57 and 65, Lui et al. a method as set forth in claim 54 and 62 wherein said characteristic is a temperature of said subsystem (column 1, lines 30-35).

Referring to claims 58 and 66, Lui et al. teaches a method as set forth in claim 54 and 62 further comprising the steps of: before the receiving step, establishing a communication link between said host system and said subsystem; after the receiving step but before the reporting

step, terminating said communication link; and after the terminating step but before said reporting step, establishing a communication link between said host system and said subsystem for said reporting (column 4, lines 60-65 and column 2, lines 15-17 and 23-47).

Regarding claims 59 and 67, Lui et al. teaches a method as set forth in claim 58 and 66 wherein each of said communication links comprises SCSI commands and protocol (column 1, lines 13-17 and column 2, lines 45-48 and 59-61 and column 3, lines 48-49 and column 5, lines 39-41).

Referring to claims 60 and 68, Lui et al. teaches a method as set forth in claims 54 and 62 wherein said subsystem comprises a SAF-TE enclosure, and said characteristic of said subsystem pertains to said SAF-TE enclosure (column 1, lines 13-20 and 30-35).

Regarding claims 61 and 69, Lui et al. teaches a method as set forth in claim 54 and 62 wherein said subsystem comprises a SAF-TE enclosure (column 1, lines 13-20 and 30-35) and programming to support periodic SAF-TE polls made by said host system for said characteristic, and further comprising the step of said subsystem receiving periodic SAF-TE polls made by said host system (column 6, lines 32-42), and said subsystem responding to said periodic SAF-TE polls by promptly reporting said characteristic for each of said polls, whether or not said characteristic has changed (column 5, lines 27-41).

(11) Response to Argument

With respect to Group I (claim 54), the applicant argues that none of the three references teaches that the amount of change of a numerically variable characteristic causes a report, and that the host specifies the amount of change to warrant the report. As per the 103 rejection, the argument is not persuasive because Lui et al. teaches the monitoring of the temperature of a

storage device enclosure and reporting the status of the device back to the host processor, wherein the monitoring unit has a set of comparison values from the host processor (column 1, lines 30-35 and 51-57 and column 4, lines 23-26 and column 5, lines 27-41). Lui et al. states, "In the Monitor Mode, environment information may be communicated between the host processor and the environment monitoring unit...Such information may include, for example environment limits specified by the host processor...the host processor may specify that the ambient temperature within a particular storage device enclosure should not exceed a desired value...". Therefore Lui et al. teaches that the host specifies values and limits to monitor for and that warrant a report. Minimum numeric amount of change is disclosed in Day (column 2, lines 34-37 and column 3, lines 17-20 and 29-32) where an alert is given when the temp exceeds the threshold value by 10. Day states, "the alert condition is met when the exceeds_threshold value is greater than 10. The alert action is to send an email message witht eh value fo the TEMP to a given address...The variable exceeds_threshold establishes EXCEED as the amount by which the temperature threshold must at least be exceeded in order to trigger an alert action". The amount of change is the difference between two values. Thus 10 (the difference between the threshold temp and the alert temp) is an amount of change and in the case of the claimed invention is the minimum numerical amount of change that causes a report. The applicant argues that Day teaches reporting when the temperature changes by a predetermined amount over a threshold while their invention teaches reporting when the temperature changes by a predetermined amount "(whatever it is)" (page 8, last paragraph of the Appeal Brief), but "(whatever it is)" and any further elaboration on change in temperature is not present in the claim language. Taken together Lui et al. and Day adequately teach the amount of change of a

numerically variable characteristic causes a report, and that the host specifies the amount of change to warrant the report.

With respect to Group II (claim 62), the applicant argues that claim 62 is similar to claim 54 and therefore distinguishes over the prior art for the same reasons as claim 54. To address this point please refer to examiner's response to arguments above for Group I (claim 54). The applicant also argues that none of the three references teaches the same subsystem that monitors the numerically variable characteristic, reports the change in the numerically variable characteristic upon a predetermined time-out. As per the 103 rejection, the argument is not persuasive because Lui et al. teaches polling between a monitored device and host device as admitted by the applicant (page 7, bullet number 1 of the Appeal Brief), and polling between a host device and monitored device is also disclosed in the background of application (page 3, lines 3-9, page 5, lines 1-3 and page 8, lines 8-12). The background states, "The SAF-TE is a polling based interface...the specification states that it expects most implementers to poll the SEP once every two to ten seconds." Therefore the polling frequency or interval of every two to ten seconds is seen as a predetermined time-out by the examiner because at that moment regardless of the change in status of the monitored variable its value is reported to the host device. It is also the examiner's opinion that Nakashima et al. teaches the above feature (column 1, lines 42-46 and 52-54). Nakashima et al. discloses, '...the network monitoring station collects status information from ATM network devices by transmitting query messages at regular intervals to request them to send back their local administrative information, including device configuration, functional status, and statistics... this system, however, repeats such data collection at predetermined intervals, regardless of the presence of actual status changes in each

individual ATM network device." The regular intervals of request are equivalent to set timeout periods because both set a time at which a status response must be sent to the host and both respond to the request with the current data regardless of a change in status. Nakashima et al. is used in combination to simply teach the reporting of a result at the expiration of a time period, and is not relied upon to teach the monitoring of a numercially variable characteristic or that the same subsystem that monitors reports the change to the host (these features are taught by Lui et al. and Day). Further, the applicant argues that claim 62 recites "the subsystem is responsive to a time-out" to report to the host system and that the prior art of record in contrast teaches the host is responsive to a time-out (page 10, first paragraph of appeal brief). This argument is mute due to the fact that claim 62 does not recite "the subsystem is responsive to a time-out" within the claim language. The claim recites said subsystem reporting to said host system a value...or amount of change...upon said predetermined time-out. Therefore it is possible for the time-out to trigger a polling request to be sent from the host system to the subsystem and the subsystem the reports the value to the host system. Taken together, Lui et al., Day, and Nakashima et al. adequately teach the same subsystem that monitors the numerically variable characteristic, reports the change in the numerically variable characteristic upon a predetermined time-out.

With respect to Group III (claim 61), the applicant argues that said subsystem comprises a SAF-TE enclosure and programming to support periodic SAF-TE polls made by said host system for said characteristic, and further comprising the step of said subsystem receiving periodic SAF-TE polls made by said host system, and said subsystem responding to said periodic SAF-TE polls by promptly reporting said characteristic for each of said polls, whether or not said characteristic has changed. As per the 103 rejection, Lui et al. teaches of SCSI fault-tolerant

enclosures and polling by said host system and said subsystem responding (column 1, lines 13-20 and 30-35 and 51-57 and column 5, lines 27-41 and column 6, lines 38-42). Lui et al. states, 'Modern computer systems often use ...SCSI bus to link a processor unit to a variety of devices, especially storage devices...it is desirable to monitor the operating environment of the storage devices, particularly in fault-tolerant computing applications. For example, it is important to know the ambient temperature of a storage device enclosure...such information is not available from commercial SCSI-based storage devices. Therefore, an environment monitoring system is needed in the enclosures...to monitor the local environment, and to communicate status information about the environment back to a host processor'. Also Nakashima et al. teaches on polling and reporting said characteristic whether or not said characteristic has changed (column 1, lines 38-46 and 51-54) as discussed in the examiners response to the applicant's arguments for Group II. Nakashima et al. states, '...repeats such data collection at predetermined intervals, regardless of the presence of actual status changes...' Further the background of the application refers teaches periodic SAF-TE polls (page 2, lines 1-7 and 14-21 and page 3, lines 3-7 and page 5, lines 1-3). The background states, "The SAF-TE is a polling based interface...the specification states that it expects most implementers to poll the SEP once every two to ten seconds. The SEP (SAF-TE's Processor) device is periodically polled by the host through the host adapter to detect changes in status". Taken together, Lui et al., Day, and Nakashima et al. adequately teach said subsystem comprises a SAF-TE enclosure and programming to support periodic SAF-TE polls made by said host system for said characteristic, and further comprising the step of said subsystem receiving periodic SAF-TE polls made by said host system, and said subsystem

responding to said periodic SAF-TE polls by promptly reporting said characteristic for each of said polls, whether or not said characteristic has changed.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

ALB
June 17, 2004

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